

WHAT IS CLAIMED IS:

1. A back support system comprising:

a rigid base having a front surface and a rear surface,  
said rear surface adapted to be positioned as a back of a chair,  
said base having a longitudinal mid-axis which is adapted to be  
located in alignment with a user's spine;

an inflatable bladder assembly mounted in part on said  
front surface, said inflatable bladder assembly including several  
sets of bladders, each said set comprising at least two in number  
of inflatable bladders, each said bladder being spaced from said  
mid-axis so no force from a said bladder would be applied directly  
to a user's spine; and

means for controlling the inflation of said inflatable  
bladder assembly, said means being manually operable by a user.

2. The back support system as defined in Claim 1  
wherein:

each said set of bladders being activated  
simultaneously.

3. The back support system as defined in Claim 2

wherein:

activation of said inflatable bladder assembly being by  
means of a battery.

4. The back support system as defined in Claim 1  
wherein:

said sets of bladders including an upper lumbar bladder  
set, said upper lumbar bladder set being adapted to be located in  
the upper lumbar region of a human user.

5. The back support system as defined in Claim 1  
wherein:

said sets of bladders includes a middle lumbar bladder  
set, said middle lumbar bladder set adapted to be located against  
the middle lumbar region of a human user's back.

6. The back support system as defined in Claim 1  
wherein:

said sets of bladders including a lower lumbar bladder  
set, said lower lumbar bladder set adapted to be located against  
the lower lumbar region of a human user.

7. The back support system as defined in Claim 1  
including:

a tilt bladder assembly connected to said rear surface  
of said base, activation of said tilt bladder assembly is to cause  
pivoting of said base about a transverse axis which is located  
perpendicular to said mid-axis.

8. The back support system as defined in Claim 1 including:

at least one bolster connected by a hinge axis to said rigid base, said hinge axis being located parallel to said mid-axis, said bolster being pivotable relative to said base by means of a bolster bladder, inflation of said bolster bladder causes said bolster to pivot about said hinge axis in order to vary the lateral support that is applied to a back of a human user.

9. The back support system as defined in Claim 1

wherein:

said base comprising a fixed plate and a movable plate which are hingedly connected together at one edge forming a transverse axis, a tilt bladder located between said fixed plate and said movable plate, inflation of said tilt bladder causes one of said movable plate to pivot relative to said fixed plate thereby varying the angular position of said back support system which is to provide back support for a human user.

10. A back support system comprising:

a main section adapted to be located against the back of a human user, said main section having a front surface and a rear surface, said front surface adapted to be positioned as a back of a chair, said main section having a longitudinal mid-axis adapted to extend from a user's lower lumbar area to a user's upper lumbar area;

a frontal inflatable bladder assembly mounted in part on said front surface, said frontal inflatable bladder assembly including several sets of frontal bladders;

a pair of bolsters hingedly attached to said main section, each said bolster being attached to a side edge of said main section forming a hinge axis for each said bolster, each said hinge axis being substantially parallel to said mid-axis whereby each said bolster being movable relative to said main section about its respective said hinge axis by means of a bolster bladder with there being a separate bolster bladder for each said bolster, moving of each said bolster is to provide lateral support to a back of a user, a portion of said frontal bladder assembly being mounted on each said bolster; and

means for controlling the inflation of said frontal inflatable bladder assembly and said bolster bladders, said means being manually operable by a user.



12. A back support system comprising:

a main section adapted to be located across the back of a user, said main section having a front surface and a rear surface, said rear surface adapted to be positioned as a back of a chair, said main section having a longitudinal mid-axis adapted to extend from a user's lower lumbar area to a user's upper lumbar area;

a frontal inflatable bladder assembly mounted on said front surface, said frontal inflatable bladder assembly including several sets of frontal bladders;

a rear inflatable bladder mounted on said rear surface of said main section, said main section including a transverse axis permitting said main section to pivot, said transverse axis being located substantially perpendicular to said mid-axis, inflation of said rear inflatable bladder causes said main section to pivot; and

means for controlling the inflation of said frontal inflatable bladder assembly and said rear inflatable bladder, said means being manually operable by a user.